FIRE PREVENTION STANDARDS

OBJECTIVE

To insure that fire hydrants on private property meet the requirements of the Fire District, NFPA 291 and NFPA 24, and the water purveyor having jurisdiction.

This Policy will apply to all fire hydrants installed on private property within the jurisdiction of the Sacramento Metropolitan Fire District.

All individuals and companies who propose to engage in the installation or alteration of fire hydrants on private property are subject to the requirements of this Policy.

PROCEDURE

A. Commercial On Site Hydrants: Hydrants shall meet the following minimum requirements or those of the water purveyor having jurisdiction if they have a specific hydrant requirements.

1. Fire hydrants shall have a .9 coefficient of discharge or greater and with a maximum head loss of 5 psi at 1000 gallons per minute. Provide specification sheet to plan review section for approval prior to installation.

2. Outlets shall be national standard threads. One 4.5 inch and two 2.5-inch outlets are required.

   a. 4.5 inch outlet shall face the street or fire access lane. This outlet shall be a minimum of 15 inches above grade.

   b. 2.5 inch outlets shall be placed above the pumper connection and be oriented 90 degrees relative to each other.

   c. Hydrant outlets shall turn on in the counter clockwise direction.

3. Fire hydrants shall be a minimum of 24 inches in height from base flange to top of hydrant.

4. Fire hydrants are to be painted rustoleum **white** or equal.

5. The fire hydrant base flange shall be a minimum, of 2 inches above the finished grade or planter curb.

6. Hydrants shall be within 8 feet of the approved fire department access.

7. Fire hydrant spacing is a maximum of 300 feet on center.

8. Hydrants are considered inaccessible when:

   a. More than two lanes of traffic must be crossed
   b. If in the bulb of a cul-de-sac

9. There shall be no obstruction within 36 inches of any fire hydrant. This includes plants.(see attachment)

10. Hydrants subject to vehicular damage will be provided with barricades.(see attachment)

11. Each hydrant shall have a control valve underground accessible for maintenance.

12. Fire Hydrants shall be a minimum of 40' from any building served by that hydrant.

EXCEPTION: When this is not possible the hydrant shall be a minimum of 40' from any opening in the building or from a combustible wall.

B. Residential Hydrant Requirements

1. Hydrants shall have a .9 coefficient of discharge or greater and have a maximum head loss of 5 psi at 1000 gallons per minute. Provide specification sheet to plan review section for approval prior to installation.

2. Hose outlets shall be national standard thread. Hydrants shall have one 4.5 inch outlet and one 2.5 inch outlet.

a. 4.5 inch outlet shall face the street or fire access lane.

b. 2-1/2 inch outlet shall be above the pumper connection.

3. Hydrants shall be a minimum of 23 inches in height from base flange to top of hydrant.

4. Hydrants shall be painted rustoleum **white** or equal.

5. Fire hydrant base flange shall be a minimum 2 inches above the finished grade or planter curb.

6. Fire hydrant shall be within 8 feet of approved fire department access.

7. Hydrant spacing may be a maximum of 500 feet on center with prior approval.

8. Hydrants are considered inaccessible when:
   a. More than two lanes of traffic must be crossed
   b. If in the bulb of a cul-de-sac

9. Provide and maintain a 36 inch clearance around all hydrants. see attached)

11. If hydrants are subject to vehicular traffic provide barricades.(see attached)

12. Each hydrant shall have an accessible underground control valve for maintenance.

C. Backflow Prevention

1. Hydrant shall be provided with backflow prevention devices as required by the local water purveyor and state law.

   a. Resistance to flow of backflow prevention devices shall be taken into consideration when calculating pressure loss for on-site hydrant systems.

   b. Pipe size will be greatly affected by these back flow devices in attempting to provide required fire flow.

   c. Testing to prove available fire flow will be conducted after installation by Fire District personnel.

   d. Corrections to piping will be made if fire flow is deficient by installer.

D. Looped Systems

1. Three or more hydrants on a single supply line will require two taps to a public main.

2. Two or more hydrants in conjunction with fire sprinkler lines will require two taps to a public main.

3. A maximum of six fire sprinkler systems may be served from one supply tap.

4. If possible these taps will be made at remote locations **with a control valve between them** or to locations on different streets.

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Mike Dobson, Fire Marshal